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Attention, working memory and executive functions in patients with internet addiction disorder

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Abstract:

Background: Attention, working memory and executive functions are high cortical activities which can be impaired in patients with internet addiction disorder (IAD). Many studies have shown a considerable cognitive deficit compared with healthy individuals. The aim of the study was to determine the possible deficits in the afflicted patients in an Iranian population.

Methods: In this descriptive- analytic study, 30 patients with internet addiction disorder were recruited compared with 30 healthy counterparts through semi-structured interview (SCID), Internet Addiction Test (IAT) and General Health Questionnaire (GHQ). The drop-out rates were 10 and 13 percent for IAD and control group, respectively. Cognitive functions were assessed by Persian Paper and Pencil Cognitive Assessment Package (PCAP). Data were analyzed through SPSS-23 by Analysis of variance and chi- square. P- Values less than 0.05 were considered statistically significant.

Results: Stroop test and Verbal fluency test showed no significant difference in attention and executive functions between the groups ($p > 0.05$) but Backward Digit Span Test (BDST) and Letter Number Sequencing Test (LNST) revealed a significant difference ($p < 0.001$).

Conclusion: The results showed that patients with IAD were suffering from working memory impairments which may impact on educational functioning especially among students.

Keywords:

Attention, Working memory, Internet addiction

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